DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015355 Address: 333 Burma Road **Date Inspected:** 03-Jul-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

Mr. Huang min / Mr. Xu Le Feng CWI Present: **CWI Name:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A **Weld Procedures Followed:** Yes N/A **Electrode to specification:** No Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:**

Yes No N/A **Delayed / Cancelled:** 34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-5

This QA Inspector Randomly observed the following work in progress:

This QA Inspector observed that no significant work was being performed on above mentioned Bay at the time when this QA was present.

BAY-6

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 06109.

Magnetic Particle Testing (MT)

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Bottom

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Panel weld Components. Total number of welds MT Tested: 37 No's. The weld designations are review as follows:

- 1. BP3061-001--019,020,031,032,043,044,055,056,067,068.
- 2. BP3044-001-013~024,045,046.
- 3. BP3044-001-028.
- 4. BP3037-001-001~012.

During Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Bottom Panel (BP) BP3044A, this QA Inspector observed One (1) Longitudinal Linear indication measuring approximately 5 mm in length. The weld is identified as: BP3044-001-028. The weld is a fillet weld joining Bottom plate (PL3232A) to Stiffener plate (RS3133Y). The fillet weld size measured to be 9 mm. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC QC personnel are required to perform 10% MT inspection of these welds.

This QA Inspector generated an incident report on this date for the above issue, for further information see the incident report and attached photos for reference.

ZPMC Personnel performing Heat Straightening for the Bottom Panel (BP) 3066A. Heat straightening was being performed appeared to comply with the Applicable HSR Repot# HSR1 (B)-8665 . ZPMC Quality Control (QC) is identified as Mr. Shu Yang Hua.

Shielded Metal Arc Welding (SMAW) welding of weld joint WJF-0-455. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Zhao Jian Hang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3112-1.

SMAW welding of weld joint WJF-0-465. Welder is identified as 215083. ZPMC Quality Control (QC) is identified as Mr. Zhao Jian Hang. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-3112-1.

Submerged Arc Welding (SAW) of weld joint WJF-0-185. Welder is identified as 054458. ZPMC Quality Control (QC) is identified as Mr. Zhao Jian Hang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3221-TC-U4a-S-1.

Signed off the following green tags:

1.13284.

2.13287.

BAY-7

SMAW Tack welding of weld joint EP3013-001-031/032. Welder is identified as 046813. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112.

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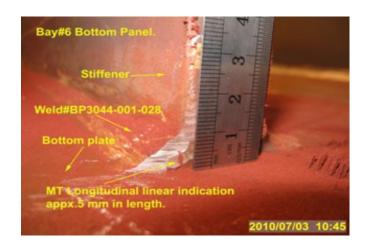
SMAW Tack welding of weld joint EP3020-001-025/026. Welder is identified as 250833. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- P-2112.

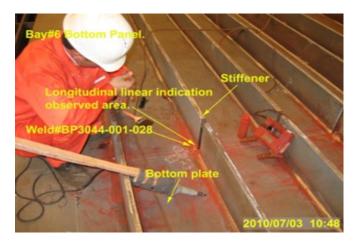
Flux Cored Arc Welding (FCAW) of weld joint SP3064-001-013/014. Welder is identified as 217185. ZPMC Quality Control (QC) is identified as Mr. Guo Pan. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

BAY-11

SMAW Tack welding of weld joint SP3106-001-002. Welder is identified as 203314. ZPMC Quality Control (QC) is identified as Mr. Mao Mao Zhao. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2112-FCM.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer